

WHAT IS CLAIMED IS:

1. A data recording apparatus comprising:
 - a receiver unit that receives a stream of encoded digital data;
 - 5 an analyzer that detects a change in an attribute of the stream received by the receiver unit and that outputs detection information;
 - a controller that generates management information containing the detection information output by the analyzer and time information indicating detection time of the change as a first entry point;
 - 10 a drive that records the management information generated by the controller and the stream received by the receiving unit to a data storage medium; and
 - an input unit that defines a second entry point which is set relative to playback path of the stream and is used to access and read from a particular point in the stream,
 - 15 said controller further generating the management information containing the first entry point and the second entry point respectively identified.
2. A data recording apparatus according to claim 1, wherein the controller
 - 20 generates the management information including a first table containing the first entry point and a second table containing the second entry point.
3. A data recording apparatus according to claim 1, wherein the controller
 - 25 generates the management information including separate identification flags for the first entry point and the second entry point.

4. A data recording apparatus according to claim 2, wherein the analyzer detects at least one of the following as the change in the attribute of the stream: a change in a broadcast program when the stream is a digital broadcast stream,
5 a change of PSI/SI information in digital broadcast stream that controls playback of the stream, a change in a multi-view attribute, a change back to a starting point of a data carousel, a change in content of the data carousel, a change in program map table PMT, a module change, a change of data event, a change in parental control information, a change in an audio stream attribute,
10 and a change in sequence header information when the stream is a digital broadcast MPEG video stream.

5. A data recording apparatus according to claim 4, wherein the management information contains link information to AV data recorded on the
15 data storage medium for the first entry point and the second entry point.

6. A data recording apparatus according to claim 2, further comprising:
a reading unit that reads the management information and the stream recorded on the data storage medium;
20 a decoder that decodes the stream read by the reading unit; and
an output unit that outputs the management information read by the reading unit and the stream decoded by the decoder,
in the case the second entry point is input from the input unit, the reading unit reading the management information, and the output unit displaying the first
25 entry point contained in the first table and the second entry point previously

input and contained in the second table of the management information.

7. A data recording apparatus according to claim 2, further comprising:

5 a reading unit that reads the management information and the stream recorded on the data storage medium;

a decoder that decodes the stream read by the reading unit; and

an output unit that outputs the management information read by the reading unit and the stream decoded by the decoder,

10 the reading unit reading the management information, and the output unit displaying the second entry point contained in the second table of the management information.

8. A data recording apparatus according to claim 3, wherein the data storage medium is an optical disc.

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9. A data recording method comprising:

receiving a stream of encoded digital data;

detecting a change in an attribute of the stream received by the receiver unit and outputting detection information;

20 generating management information containing the detection information and time information indicating detection time of the change as a first entry point;

recording the generated management information and the received stream to a data storage medium; and

25 defining a second entry point which is set relative to playback path of the

stream and is used to access and read from a particular point in the stream,

said generating further generating the management information containing the first entry point and the second entry point separately identified.

5 10. A data recording method according to claim 9, wherein said generating generates the management information including a first table containing the first entry point and a second table containing the second entry point.

10 11. A data recording method according to claim 9, wherein said generating generates the management information including separate identification flags for the first entry point and the second entry point.

12. A computer-executable, data recording program comprising:
receiving a stream of encoded digital data;
15 detecting a change in an attribute of the stream received by the receiver unit and outputting detection information;

generating management information containing the detection information and time information indicating detection time of the change as a first entry point;

20 recording the generated management information and the received stream to a data storage medium; and

defining a second entry point which is set relative to playback path of the stream and is used to access and read from a particular point in the stream,

said generating further generating the management information
25 containing the first entry point and the second entry point separately identified.

13. A data recording program according to claim 12, wherein said generating generates the management information including a first table containing the first entry point and a second table containing the second entry point.

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14. A data recording program according to claim 12, wherein said generating generates the management information including separate identification flags for the first entry point and the second entry point.

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15. A data storage medium recording a data recording program according to claim 13.